

# SAFETY DATA SHEET

## 1. Identification

### Identification

**Product name:** RL 46H (4315-41, 4315-46)

### Additional identification

**Chemical name:** Mixture

### Recommended use and restriction on use

**Recommended use:** Refrigeration Lubricants.  
**Restrictions on use:** None identified.

### Details of the supplier of the safety data sheet

#### Supplier

**Company Name:** Nu-Calgon  
**Address:** 2611 Schuetz Road  
St. Louis, MO 63043  
USA  
**Telephone:** 314-469-7000 / 800-554-5499

### Emergency telephone number:

FOR TRANSPORT EMERGENCY CALL CHEMTREC (+1)703 527 3887, OR WITHIN USA 800 424 9300

## 2. Hazard(s) identification

### Hazard Classification

#### Health Hazards

Skin sensitizer Category 1

#### Unknown toxicity

Acute toxicity, oral	0.0 %
Acute toxicity, dermal	0.0 %
Acute toxicity, inhalation, vapor	45.0 %
Acute toxicity, inhalation, dust or mist	0.0 %

### Label Elements:

#### Hazard Symbol:



**Signal Word:** Warning

**Hazard Statement:** May cause an allergic skin reaction.

**Precautionary Statements:**

**Prevention:** Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see on this label). Wash contaminated clothing before reuse.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification:** None identified.

### 3. Composition/information on ingredients

Chemical name	CAS number	Percent by Weight
Mixture of carboxylic acid esters	Confidential	50 - 60%

**Trade secret information:** A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

**Ingestion:** Treat symptomatically. Get medical attention.

**Inhalation:** Remove exposed person to fresh air if adverse effects are observed.

**Skin Contact:** Wash with soap and water. If skin irritation occurs, get medical attention. Launder contaminated clothing before reuse. Wash skin thoroughly with soap and water. If skin irritation or rash occurs: Get medical attention. Launder contaminated clothing before reuse.

**Eye contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** See section 11.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Treat symptomatically.

## 5. Fire-fighting measures

**General Fire Hazards:** No unusual fire or explosion hazards noted.

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** CO<sub>2</sub>, Dry chemical or Foam. Water can be used to cool and protect exposed material. CO<sub>2</sub>, dry chemical, foam, water spray, water fog.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire. Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. See section 10 for additional information.

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Recommend wearing self-contained breathing apparatus.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Ventilate area if spilled in confined space or other poorly ventilated areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. See Section 8 of the SDS for Personal Protective Equipment.

**Methods and material for containment and cleaning up:** Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.

**Environmental Precautions:** Avoid release to the environment. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling:** Keep containers closed when not in use. Avoid inhalation of dust, aerosol, mist, spray, fume, or vapor. Use with appropriate and adequate ventilation. Avoid contact with eyes, skin and clothing. Empty container contains product residue which may exhibit hazards of product.

Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Launder contaminated clothing before reuse.

**Maximum Handling Temperature:** Not determined.

**Conditions for safe storage, including any incompatibilities:** Store away from incompatible materials. Keep in original container. See section 10 for incompatible materials.

**Maximum Storage Temperature:** Not determined.

## 8. Exposure controls/personal protection

### Control Parameters:

#### Occupational Exposure Limits

None of the components have assigned exposure limits.

**Appropriate engineering controls:** Adequate ventilation should be provided so that exposure limits are not exceeded.

### Individual protection measures, such as personal protective equipment

**General information:** Use personal protective equipment as required.

**Eye/face protection:** If contact is likely, safety glasses with side shields are recommended.

#### Skin Protection

**Hand Protection:** Neoprene. Rubber (natural, latex). Suitable gloves can be recommended by the glove supplier. Consult clothing/glove manufacturer to determine appropriate type of glove for given situation. Gloves should always be inspected before each use and discarded if they show tears, pinholes, or signs of wear. Use good industrial hygiene practices to avoid skin contact. If contact with the material may occur wear chemically protective gloves. Polyvinyl chloride (PVC). Nitrile.

**Other:** Long sleeve shirt is recommended. Wear apron or protective clothing in case of contact. Gloves, coveralls, apron, boots as necessary to minimize contact. Do not wear rings, watches or similar apparel that could entrap the material.

**Respiratory Protection:** Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator. Use respirator with a combination organic vapor and high efficiency filter cartridge if recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

**Hygiene measures:** Observe good industrial hygiene practices. Avoid contact with skin. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	Colorless to yellow
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Freezing point:</b>	No data available.
<b>Boiling Point:</b>	No data available.
<b>Flash Point:</b>	500 °F (260 °C) (Cleveland Open Cup)
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Relative density:</b>	0.977 68 °F (20 °C)
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Insoluble in water
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	770 °F (410 °C)
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	46 mm <sup>2</sup> /s ( 104 °F (40 °C) ) 7.1 mm <sup>2</sup> /s (100 °C (212 °F) )

**Other information****Pour Point Temperature:** -54 °F (-48 °C)**10. Stability and reactivity**

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Will not occur.
<b>Conditions to avoid:</b>	Do not expose to excessive heat, ignition sources, or oxidizing materials.
<b>Incompatible Materials:</b>	Strong acids Strong bases. Strong oxidizing agents.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, and other products of incomplete combustion.

**11. Toxicological information****Information on likely routes of exposure**

<b>Inhalation:</b>	No data available.
<b>Ingestion:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.

**Information on toxicological effects****Acute toxicity****Oral**

Product: Ingestion of this material may cause gastric disturbances.  
Not classified for acute toxicity based on available data.

**Dermal**

Product: Not classified for acute toxicity based on available data.

**Inhalation**

Product: Not classified for acute toxicity based on available data.

**Skin Corrosion/Irritation:**

Product: Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.  
Remarks: Not classified as a primary skin irritant.

**Serious Eye Damage/Eye Irritation:**

Product: Remarks: Not classified as a primary eye irritant.

**Respiratory sensitization:**

No data available

**Skin sensitization:**

Mixture of carboxylic acid esters      Classification: Skin sensitizer (Measured) Category 1B

**Specific Target Organ Toxicity - Single Exposure:**

No data available

**Aspiration Hazard:**

No data available

**Chronic Effects**

**Carcinogenicity:**

No data available

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ Cell Mutagenicity:**

Mixture of carboxylic acid esters      In vitro mutagenicity tests have been negative.

**Reproductive toxicity:**

Mixture of carboxylic acid esters      Not Classified based on available data.

**Specific Target Organ Toxicity - Repeated Exposure:**

No data available

**12. Ecological information**

**Ecotoxicity**

**Fish**

Product:      LC 50 (Not reported, 4 d): > 10,000 mg/l

Mixture of carboxylic acid esters      LC 50 (Rainbow Trout, 4 d): > 100 mg/l

**Aquatic Invertebrates**

Product:      EC 50 (Water flea (Daphnia magna), 2 d): > 1,000 mg/l

Mixture of carboxylic acid esters      EC 50 (Water flea (Daphnia magna), 2 d): > 100 mg/l

**Toxicity to Aquatic Plants**

Product: EC 50 (Green algae (*Selenastrum capricornutum*), 4 d): > 1,000 mg/l

Mixture of carboxylic acid esters EC 50 (Algae (*Pseudokirchneriella subcapitata*), 3 d): > 100 mg/l  
NOEC (Algae (*Pseudokirchneriella subcapitata*), 3 d): 100 mg/l

**Toxicity to soil dwelling organisms**

No data available

**Sediment Toxicity**

No data available

**Toxicity to Terrestrial Plants**

No data available

**Toxicity to Above-Ground Organisms**

No data available

**Toxicity to microorganisms**

Product: EC 50 (Sludge, 0.1 d): > 10,000 mg/l

Mixture of carboxylic acid esters NOEC (Sludge, 3 h): 560 mg/l

**Persistence and Degradability****Biodegradation**

Mixture of carboxylic acid esters OECD TG 301 B, 37 %, 28 d, Not readily degradable.

**Bioaccumulative Potential****Bioconcentration Factor (BCF)**

No data available

**Partition Coefficient n-octanol / water (log Kow)**

Mixture of carboxylic acid esters Log Kow: > 10 40 °C 104 °F

**Mobility:**

No data available

**Other Adverse Effects:**

No data available.

**13. Disposal considerations****Disposal instructions:**

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Dispose of packaging or containers in accordance with local, regional, national and international regulations. Empty container contains product residue which may exhibit hazards of product.

**Contaminated Packaging:**

Container packaging may exhibit hazards.



## 14. Transport information

### **DOT**

Not regulated.

### **IMDG**

Not regulated.

### **IATA**

Not regulated.

### **Transport in bulk according to Annex II of MARPOL and the IBC Code**

None known.

The DOT shipping information in this section is based on a bulk container. Please review the accompanying shipping papers for the correct shipping descriptions based the size of the package. Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material. During transportation, steps must be taken to prevent load shifting or materials falling, and all relating legal statutes should be obeyed. Review classification requirements before shipping materials at elevated temperatures.

## 15. Regulatory information

### **US Federal Regulations**

#### **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

#### **CERCLA Hazardous Substance List (40 CFR 302.4)**

None present or none present in regulated quantities.

#### **Superfund Amendments and Reauthorization Act of 1986 (SARA)**

##### **SARA 311 Classifications**

Respiratory or Skin Sensitization

##### **SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

##### **SARA 304 Emergency Release Notification**

None present or none present in regulated quantities.

##### **SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

### **US State Regulations**

#### **US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.

### **Inventory Status**

#### **Australia (AICS)**

All components are in compliance with chemical notification requirements in Australia.

**Canada (DSL/NDSL)**

All substances contained in this product are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List (DSL) or are exempt.

**China (IECSC)**

All components of this product are listed on the Inventory of Existing Chemical Substances in China.

**European Union (REACH)**

To obtain information on the REACH compliance status of this product, please e-mail REACH@SDSInquiries.com.

**Japan (ENCS)**

All components are in compliance with the Chemical Substances Control Law of Japan.

**Korea (ECL)**

All components are in compliance in Korea.

**New Zealand (NZIoC)**

All components are in compliance with chemical notification requirements in New Zealand.

**Philippines (PICCS)**

All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).

**Switzerland (SWISS)**

All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

**Taiwan (TCSCA)**

All components of this product are listed on the Taiwan inventory.

**United States (TSCA)**

All substances contained in this product are listed on the TSCA inventory or are exempt.

*The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in Section 3.*

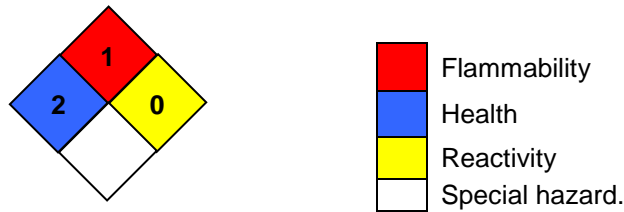
**16. Other information, including date of preparation or last revision**

**HMIS Hazard ID**

<b>Health</b>		<b>2</b>
<b>Flammability</b>		<b>1</b>
<b>Physical Hazards</b>		<b>0</b>

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect

**NFPA Hazard ID**



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

<b>Issue Date:</b>	06/15/2018
<b>Version #:</b>	4.0
<b>Source of information:</b>	Internal company data and other publically available resources.
<b>Further Information:</b>	Contact supplier (see Section 1)
<b>Disclaimer:</b>	As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.